

Trendmaster® 2000 for Windows

The next generation software platform for small machinery management

Customers said they needed:

"... reliable, detailed historical information on a problem machine so that I can do Root Cause Analysis."

"... the ability to easily interconnect and access multiple systems in one plant either onsite or remotely."

"... information input to the Distributed Control System (DCS) so that Operations can feel more confident in making informed decisions, while also providing immediate feedback on machinery condition changes due to their operating actions."

"... information needs to be accessible from multiple departments throughout the facility, including Maintenance, Engineering, Operations and Safety, as part of our Team Approach to problem solving."

"... Total Productive Maintenance (TPM) program goals are zero problems, zero downtime and zero defects. A reliable, online system is a proactive method to accomplish this."

"... an easy method of taking data from the system and generating reports to the people who need the information in the format they need it in."

"... more ways of distinguishing between the type of alarm conditions on my machinery."

by Charlie Bouley
Marketing Specialist
Bently Nevada Corporation

In 1990, Bently Nevada Corporation introduced a revolutionary product for monitoring and managing small, general-purpose machinery - the online Trendmaster 2000 System. A computer-based system which automatically samples, processes and trends data from large numbers of machines, Trendmaster 2000 changed the way you make operating and maintenance decisions on general-purpose machinery. It was, and still is, the only system of its kind.

To compete in our global economy, companies must "do more with less." Corporate "downsizing," tougher environmental regulations and increasing competition are some of the reasons why companies are reviewing the way they currently manage their machinery. Companies must reduce costs and become more efficient with resources, especially manpower. Trendmaster 2000 has been effectively used in refineries, power plants, petrochemical plants, steel mills, paper plants and manufacturing facilities. These users are realizing immediate successes and huge paybacks with Trendmaster 2000. Over 100 systems monitor 15,000 points worldwide.

Bently Nevada Corporation is committed to online monitoring systems because they are the most effective and fundamental platform for machinery management. We are proud to introduce our latest product to support this vision: *Trendmaster 2000 for Windows*.

We are committed to developing innovative products that increase the productivity and efficiency of your resources. Trendmaster 2000 for Windows is the most flexible, powerful and innovative data acquisition and display software platform available. It retains the features of the existing DOS Trendmaster 2000 software (including Remote Access and DCS Interface), while adding powerful new features requested by Trendmaster 2000 users. The **Microsoft Windows NT/Windows** graphical operating environment makes it user-friendly and offers a platform for future enhancements.

We developed Trendmaster 2000 for Windows after listening to, watching and learning from our customers.

How does Trendmaster 2000 for Windows meet your needs?

• Easy, compatible networking

Trendmaster 2000 for Windows is specifically designed for efficient and compatible networking. Using Microsoft® Windows NT as the data acquisition server and Windows as the display client, this system can be easily structured for plantwide or even worldwide accessibility or as a traditional standalone system. Multiple networking protocol support makes it compatible with most existing and future corporate networking environments. The Windows Display Software enables you to access data from almost any computer, not just dedicated workstations.

• Easy Remote Access

Trendmaster 2000 for Windows Display Software can be used for both onsite and remote access to system information. It uses the Windows for Workgroups Remote Access Service (RAS) feature which gives a remote computer access to an NT server (Trendmaster 2000 Data Acquisition computer). Your off-site experts or Bently Nevada Machinery Diagnostic Services and Product Service personnel can easily access your system to help identify and diagnose problems.

• Distributed Control System (DCS) interface capability

Using the DCS Interface Software option, Trendmaster 2000's system, data and alarm condition information can be read by a DCS and then displayed to your operator's screen. Process and machinery condition data can now be displayed on an operator's "single window" so he can make more informed operating decisions.

• New alarming and plot methods

Trendmaster 2000 for Windows Software includes new alarming variables and plot options which help you determine the severity of the machine problems and plan appropriate maintenance action. New plots, such as NOT 1X, shaft average centerline, full spectrum and full spectrum versus time, incorporate the latest rotating machinery research by Bently Rotor Dynamics Research Corporation (BRDRC). In addition to these plots, six user-configurable frequency band variables, with separate alarming and trending capability, expand your ability to define and track machinery malfunctions.

• External annunciation capability

An optional external annunciation relay card is available for the data acquisition computer. The relays on the card are activated depending on the type of alarm detected by the Trendmaster 2000. These relays can be wired to an alarm bell, panel light or other indicator to inform personnel of a possible machinery problem, especially if the Data Acquisition computer is housed in an unmanned or low traffic area.

• Easy report generation

Trendmaster 2000 for Windows Software uses Windows' Clipboard and Notepad programs to allow plots, screens and machine notes and comments to be easily imported into popular word-processing and spreadsheet programs. Any displayed screen can be printed out using Clipboard. You can customize reports so information is presented in a familiar, easy-to-read format.

• Added software features

Other new features include Configuration Templates, Machine Train Labels, Save Plot, Online Plot and Alarm Level Reconfiguration, Spectrum by Orders, programmable Time Delay, Online Help/Glossary and Quick Plot. Quick Plot is a single command which automatically displays data from a single point in four plot formats. Personnel with a cursory knowledge of Trendmaster 2000 will find this convenient when an alarm condition occurs.

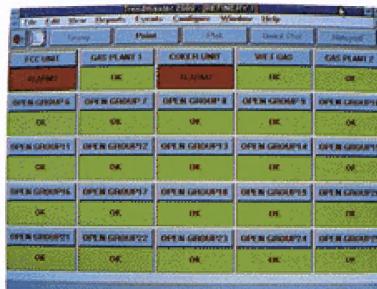
Upgrade plan for existing users

At Bently Nevada, we take product compatibility and upgradability very seriously. Trendmaster 2000 for Windows Software is compatible with existing systems' field hardware, such as Signal Processing Adaptors (SPAs), cabling, Transducer Interface Modules (TIMs) and transducers. The existing DOS-based software version will be sustained; however, no new enhancements are planned at this time.

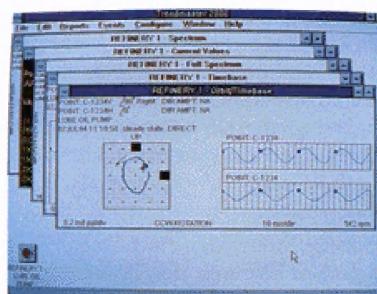
Since we believe that this new product will be the new standard platform for Trendmaster 2000, we are encouraging all existing system users to upgrade to this new product. A special upgrade offer is available to existing users. Contact your nearest Bently Nevada sales representative for details on this "limited-time" offer. See how the new Trendmaster 2000 for Windows will help you successfully monitor and manage your machinery into the 21st century!

For more information on Trendmaster 2000 for Windows, contact your nearest Bently Nevada sales and service representative. ■

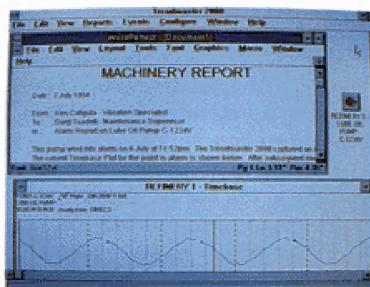
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Complete plantwide information available on the Group Select screen.



Retrieve multiple plots on one screen.



Easily "cut & paste" plots into programs to create machinery reports.